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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/572,586	03/20/2006	Mineyuki Kubota	286945US0PCT	3390
22850	7590	06/29/2009		
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER GARRETT, DAWN L				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
06/29/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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# Office Action Summary

## Application No.

10/572,586

## Applicant(s)

KUBOTA ET AL.

## Examiner

Dawn Garrett

## Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 3-6-09
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. This Office action is responsive to the amendment received March 6, 2009. Claims 10-13 were amended. Claims 14-19 were added. Claims 1-19 are pending.
2. It is suggested that the words "described above" be removed from claims 6, 8, 9, and 11-13 for the purpose of further clarity.

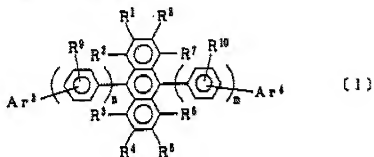
***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

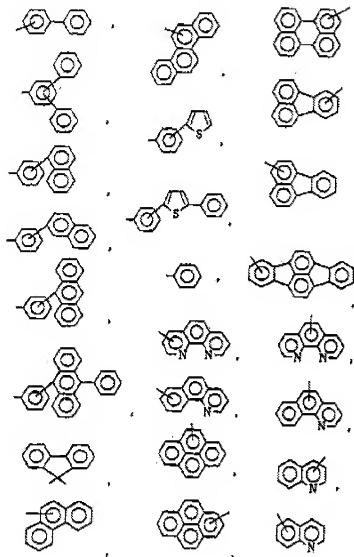
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeda et al. (EP 1333018 A1). Ikeda et al. teaches organic electroluminescent elements comprising diphenylanthracene compounds in at least one of the organic layers (see abstract).

General formula [1]:



In the general formula 1 compound above, each R may be hydrogen. The Ar<sup>2</sup> and Ar<sup>4</sup> groups are independently selected as substituted or unsubstituted aryl groups having 6 to 30 carbon atoms (see par. 8-9, page 3). Ar<sup>2</sup> and Ar<sup>4</sup> are taught to include groups such as the following (see par 35, pages 7-8) per instant claims 5, 6, 14, 16, and 18:



General formula 1 shows that the Ar2 and Ar4 groups may bond at any position of the phenyl group per instant claims 2-4. With regard to instant claims 7-11, 15, 17 and 19, an organic layer of the device may comprise general formula 1 with further light emitting materials, doping materials, hole injecting and electron injecting materials (see par. 51, 40-42). With regard to instant claims 12 and 13, hole injecting material that may be included in the layer with the general formula 1 compound (see par. 51) may include triphenylamines of the styrylamine type (see par. 43, page 19).

Although Ikeda et al. do not set forth an asymmetric compound as an *example* compound representing general formula 1, it would have been obvious to one of ordinary skill in the art at the time of the invention to have formed an asymmetric compound according to general formula 1, because Ikeda et al. teach Ar<sub>2</sub> and Ar<sub>4</sub> may be selected *independently* from one another, which would result in asymmetric compounds. One would expect the formation and use of an asymmetric compound according to general formula 1 to result in a device having excellent efficiency of light emission and heat resistance as taught, because such a compound is within the teachings of Ikeda et al. as a desirable material for forming an organic layer of an organic electroluminescent element.

#### ***Response to Arguments***

5. Applicant's arguments filed March 6, 2009 have been fully considered but they are not persuasive.

Regarding Ikeda, applicant argues Ikeda describes a tremendously large genus of anthracene derivatives and that each of the exemplified derivatives are symmetrical rather than asymmetrical. In response, the examiner notes that non-preferred embodiments can be indicative of obviousness (see *In re Lamberti*, 192 USPQ 278 (CCPA 1976); *In re Boe*, 148 USPQ 507 (CCPA 1976); *In re Kohler*, 177 USPQ 399 (CCPA 1973)), and a reference is not limited to working examples (see *In re Fracalossi*, 215 USPQ 569 (CCPA 1982)). Also, “[A] reference disclosure must be evaluated for all that it fairly [teaches] and not only for what is indicated as preferred.” *In re Bozek*, 416 F.2d 1385, 1390 (CCPA 1969). Furthermore, Ikeda et al. clearly discloses each of Ar<sub>3</sub> and Ar<sub>4</sub> (corresponding to present Ar<sub>1</sub> and Ar<sub>2</sub>) are independently

selected (see page 3, par. 9). Accordingly, applicant's argument that Ikeda et al. has to be modified in order to arrive at the claimed asymmetric formulae and argument that there is not sufficient motivation and guidance to make the proposed modifications to arrive at the claimed compounds are not persuasive. Ar3 and Ar4 are clearly independently selected from substituted or unsubstituted aryl groups having 6 to 30 carbon atoms (see page 3, par. 9).

Applicant argues unexpected results have been demonstrated in Table 1 of the present specification. The examiner submits the limited number of examples is not commensurate in scope with the breadth of the claims. None of the claims are specifically limited to the anthracene derivatives AN-8, AN-213, AN-346, AN-45, AN-72 or AN-74, which are listed in Table 1. Accordingly, unexpected results commensurate in scope with the claimed anthracene derivatives as presently presented have not been clearly shown.

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (571) 272-1523. The examiner can normally be reached Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, D. Lawrence Tarazano can be reached on (571) 272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Dawn Garrett/  
Primary Examiner, Art Unit 1794